

WHAT IS CLAIMED IS:

1. A method for enhancing cell-based immunotherapy comprising administering antigen-presenting cells and a heat shock protein or a heat shock fusion protein to a target site.

5 2. The method of claim 1, wherein death of cells has been induced at the target site by irradiation or by administration of a cytotoxic compound.

3. The method of claim 1, wherein a cytotoxic compound is co-administered to the target site.

4. The method of claim 1, wherein the antigen-presenting cells include 10 dendritic cells.

5. The method of claim 1, wherein the antigen-presenting cells are purified.

6. The method of claim 1, wherein the heat shock fusion protein contains a tumor associated antigen, a polypeptides encoded by an oncogene or a fragment thereof, or a tumor suppressor protein or a fragment thereof.

15 7. The method of claim 1, wherein the target site is a tumor site.

8. The method of claim 7, wherein death of cells has been induced at the target site by irradiation or by administration of a cytotoxic compound.

9. The method of claim 8, wherein the antigen-presenting cells include 20 dendritic cells.

10. The method of claim 9, wherein the antigen-presenting cells are purified cells.

11. The method of claim 10, wherein the heat shock protein is Hsp70 and the heat shock fusion protein contains alpha-fetal protein or prostate specific antigen.

12. A method for enhancing cell-based immunotherapy comprising 25 administering antigen-presenting cells expressing a heat shock protein or a heat shock fusion protein to a target site.

13. The method of claim 12, wherein death of cells has been induced at the target site by irradiation or by administration of a cytotoxic compound.

14. The method of claim 12, wherein a cytotoxic compound is co-administered to the target site.

15. A method for enhancing cell-based immunotherapy comprising administering antigen-presenting cells to a target site, wherein pre-existing cells at the 5 target site have been manipulated to express a heat shock protein or a heat shock fusion protein.

16. The method of claim 15, wherein death of cells has been induced at the target site by irradiation or by administration of a cytotoxic compound.

17. The method of claim 15, wherein a cytotoxic compound is 10 co-administered to the target site.

18. An immunogenic composition comprising antigen-presenting cells, a heat shock protein or a heat shock fusion protein, and a pharmaceutically acceptable carrier.

19. The immunogenic composition of claim 18, wherein the antigen-presenting cells include dendritic cells.

15 20. The immunogenic composition of claim 19, wherein the antigen-presenting cells are purified.

21. The immunogenic composition of claim 20, wherein the heat shock protein is Hsp70 and the heat shock fusion protein contains alpha-fetal protein or prostate specific antigen.

20 22. The immunogenic composition of claim 18, wherein the antigen-presenting cells are purified.

23. The immunogenic composition of claim 18, wherein the heat shock fusion protein contains a tumor associated antigen, a polypeptides encoded by an oncogene or a fragment thereof, or a tumor suppressor protein or a fragment thereof.

25 24. The immunogenic composition of claim 18, further comprising a cytotoxic compound.

25. The immunogenic composition of claim 24, wherein the antigen-presenting cells include dendritic cells.

26. The immunogenic composition of claim 24, wherein the antigen-presenting cells are purified.

27. The immunogenic composition of claim 24, wherein the heat shock fusion protein contains a tumor associated antigen, a polypeptides encoded by an oncogene or a 5 fragment thereof, or a tumor suppressor protein or a fragment thereof.

28. An immunogenic composition comprising antigen-presenting cells expressing a heat shock protein or a heat shock fusion protein, and a pharmaceutically acceptable carrier.

29. The immunogenic composition of claim 28, wherein the 10 antigen-presenting cells include dendritic cells.

30. The immunogenic composition of claim 28, wherein the antigen-presenting cells are purified.

31. The immunogenic composition of claim 28, wherein the heat shock fusion protein contains a tumor associated antigen, a polypeptides encoded by an oncogene or a 15 fragment thereof, or a tumor suppressor protein or a fragment thereof.

32. The immunogenic composition of claim 28, further comprising a cytotoxic compound.

33. The immunogenic composition of claim 32, wherein the antigen-presenting cells include dendritic cells.

20 34. The immunogenic composition of claim 32, wherein the antigen-presenting cells are purified.

35. The immunogenic composition of claim 32, wherein the heat shock fusion protein contains a tumor associated antigen, a polypeptides encoded by an oncogene or a fragment thereof, or a tumor suppressor protein or a fragment thereof.